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ABSTRACT

This pamphlet on health trends features the results of the 1999 Youth Risk Behavior Survey (YRBS) on Youth Suicide, which collected demographic and behavioral data from students in 109 Oregon public high schools. The survey asked four questions regarding sadness and suicidal behavior, including whether suicide had been attempted. This report focuses on the students who said they actually attempted suicide. (Some students use a liberal definition of suicide attempt, mistaking vivid ideation for an attempt.) Those among the highest risk group are females; younger students; students within a lower socioeconomic ranking; students that identified themselves as very under- or overweight; and students with chronic health conditions and activity limitations. Suicidal behavior is strongly linked to both environmental and behavioral risk factors. The following risk factors are explained: demographics; student health and self-image; home environment; school environment; and personal behaviors. Warning signs of suicide and suicide prevention strategies are included. Parents and educators often do not recognize a child's suicidal symptoms, or if they do, may feel ill equipped to intervene. Yet without intervention, at-risk youth may attempt suicide. Adults, and youth themselves, should be aware of the indicators of potential suicide risk, and should tell those in a position to help if they see someone exhibiting those signs. (Contains 10 figures, 5 tables, and 7 references.) (JDM)

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OREGON HEALTH TRENDS

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STATE OF OREGON • **HEALTH DIVISION** • DEPARTMENT OF HUMAN SERVICES

ED 445 309

YOUTH SUICIDE

Results from the 1999 YRBS

SERIES NO. 57
AUGUST 2000

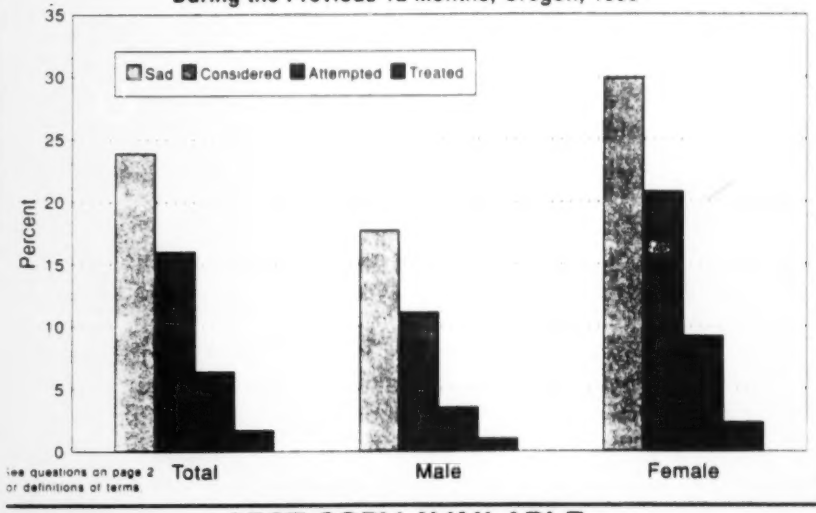
I wish I had someone to talk to.
It's awful to be suicidal. . . .
YRBS Respondent

Suicide is the second leading cause of death among Oregonians aged 10-19 years.[1] (Unintentional injuries rank first.[2]) In less than two generations, the youth suicide rate increased dramatically. Between the periods 1959-61 and 1996-98, the suicide death rate for 15- to 19-year-olds rose from 2.8 to 10.2 per 100,000 population.[3,4] Oregon's suicide rate for 15- to 19-year-olds was 29 percent higher than the nation's during 1995-97 (the most recent available data) and ranked 17th highest among the states.[5] There is good news, however; the rate for the most recent three-year period is substantially lower than the record high rate (17.8) that occurred during 1990-92.

Oregon's teen suicide rate was 29% higher than the nation's.

If the frequency of youth suicide is to be further reduced, it is essential to develop a clearer understanding of the characteristics, behaviors, and events associated with youth suicide — factors that can be used to identify at-risk youth. One available tool is the 1999 Youth

Figure 1. Percentage of High School Students Reporting Sadness and Suicidal Ideation, Attempts, and Medical Treatment (for an Attempt) During the Previous 12 Months, Oregon, 1999



See questions on page 2 for definitions of terms

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Risk Behavior Survey (YRBS). The survey included four questions regarding sadness and suicidal behavior:

1. During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?
2. During the past 12 months, did you ever *seriously* consider attempting suicide?
3. During the past 12 months, how many times did you actually attempt suicide?
4. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

Data in this report pertain only to Oregon public high school students and may not be representative of drop-outs or private school enrollees.

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Table 1. Oregon and U.S. Students Reporting Suicidal Ideation and Behavior

Within last 12 Months	Oregon		U.S.	
	1999	1997	1999	1997
Sad	24%	-	28%	-
Considered suicide	16%	22%	19%	21%
Attempted suicide	6%	9%	8%	8%
Treated for attempts	2%	2%	3%	3%

METHODOLOGY

The Youth Risk Behavior Survey (YRBS) collects self-reported demographic and behavioral data from Oregon high school students. The YRBS has been conducted in the spring of odd-numbered years since 1991. The first question, regarding sadness, was new to the 1999 survey. This question may have allowed students who would have otherwise indicated that they had considered suicide to express their emotional burden. *Because of the addition of this question, and more rigorous editing methodology instituted in recent years, the change in prevalence of suicidal ideation and behavior over time (as measured by the YRBS) should be viewed with caution, as should comparison to U.S. data.*

Forty-seven high schools were randomly selected, according to the federal Centers for Disease Control and Prevention (CDC) protocol, to participate in the 1999 YRBS. Because only 26 agreed to participate, the sample was insufficient to meet CDC random sample guidelines. Instead, results from a convenience sample consisting of 83 volunteer schools and the 26 schools that originally agreed to participate are included in this year's data. (All school superintendents for each of Oregon's 233 public schools having grades 9, 10, 11, or 12 were invited to participate in the 1999 YRBS.) Ultimately, about one in six high school students were surveyed; 25,255 surveys were returned.[9] Nearly one in ten (9.3%) of these surveys were excluded because of prevarication, invalid answers, incomplete data and other reasons. The remaining 22,913 surveys represent 14.1% of the state's 162,568 high school students.

For tabulations, the survey data was weighted to more accurately represent Oregon's population of high school students. Each student's survey was assigned a weight based on the student's grade level and the size and socioeconomic rank of his or her school.

School participation in the YRBS required permission at both district and school levels. In addition, schools were required to notify parents of the survey and give parents the option to withdraw their child/children from participation. Finally, students themselves could decline to participate. Consequently, the survey may not be representative of those refused to participate or who dropped-out of school. For additional information about the methodology used, see the forthcoming report *1999 Oregon Youth Risk Behavior Survey Summary Report.*

This report focuses on the students who said they actually attempted suicide.

A caveat: Recent research has shown that only a small proportion of survey respondents who report having attempted suicide actually have taken substantive action to injure themselves.[6] Some students use a liberal definition of "suicide attempt" mistaking vivid ideation for an attempt.[7]

RESULTS

Number at Risk

Results from the YRBS paint a disturbing picture of unhappy youth: 24 percent (an estimated 39,000 youth) reported being "sad," as defined by question 1, for period of two weeks or more during the previous year; 16 percent (26,000) said they seriously considered suicide; 6.4 percent (10,000) attempted suicide; and, 1.7 percent (2,800) reported needing medical treatment for suicide attempts (Figure 1). These numbers may seem high, but they are what the students reported, and are consistent with YRBS results in other states (Table 1). These most recent data have shown a decline in prevalence of suicidal ideation and behavior. However, it is uncertain the degree to which this represents a true decline as data editing criteria have become more stringent in recent years and a question regarding sadness/hopelessness was added.

All attempts, regardless of the severity of the injuries, should be taken seriously. If not followed by appropriate care, the next attempt could be fatal.

Suicidal behavior is a consequence of a complex interaction of factors, not a single event, although a single event may act as a trigger.[11] YRBS data show that suicidal behavior is strongly linked to both environmental and behavioral risk factors. Further, the larger the number of risk factors reported by the youth, the greater the risk of suicidal thought and behavior (Figure 2). However, few of the variables are causative (e.g., not using a seatbelt does not cause suicide), although some may be more directly related to subsequent suicidal behavior (e.g., physical abuse).

An estimated 26,000 Oregon high school students seriously considered suicide during the previous 12 months.

Figure 2. Percentage of High School Students Reporting That They Attempted Suicide, by the Number and Type of Risk Factors, Oregon, 1999

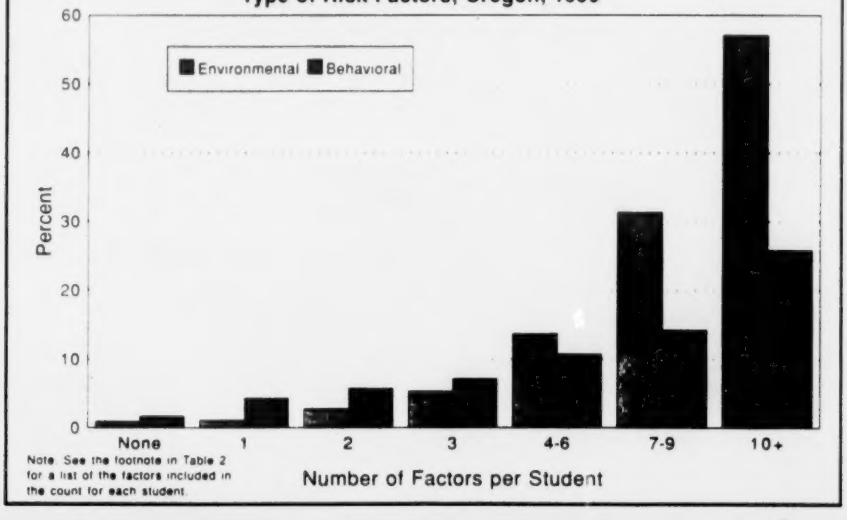

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Table. 2 Percentage of Students Who Were Sad, Considered Suicide, Attempted Suicide, or Were Treated for an Attempt During the Previous Year, Oregon Youth Risk Behavior Survey, 1999 (Part 1)[1]

Characteristic	% with Characteristic	Sad[2]			Considered Suicide			Attempted Suicide			Treated
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total	100	**24**	18	30	**16**	11	21	**6.4**	3.5	9.2	**1.7**
Grade											
9	28	**23**	16	29	**17**	11	23	**8.0**	3.7	11.8	**1.8**
10	26	**26**	18	33	**18**	12	24	**7.7**	4.4	11.0	**2.6**
11	24	**25**	18	31	**15**	11	19	**5.3**	3.1	7.3	**1.3**
12	21	**23**	18	27	**13**	11	16	**4.1**	2.7	5.4	**0.7**
School Socioeconomic Status[3]											
1 (lowest)	12	**26**	20	32	**17**	12	21	**7.9**	4.0	11.3	**1.7**
2	23	**25**	20	30	**17**	12	22	**7.5**	3.7	11.0	**2.0**
3	30	**24**	17	30	**16**	12	20	**6.0**	3.3	8.7	**1.6**
4 (highest)	36	**23**	16	29	**15**	10	20	**5.6**	3.5	7.7	**1.5**
Weight											
Very underweight	1	**37**	29	51	**30**	26	38	**17.7**	12.3	27.9	**6.9**
A little underweight to a little overweight	95	**23**	17	29	**15**	11	20	**5.9**	3.1	8.5	**1.5**
Very overweight	4	**43**	34	47	**35**	21	41	**16.1**	10.7	18.2	**3.3**
Chronic Physical Disorder											
Absent	81	**23**	17	28	**15**	11	19	**5.7**	3.1	8.1	**1.4**
Present	19	**30**	23	36	**22**	15	28	**9.7**	5.4	12.9	**2.9**
Psychological Disorder											
Absent	92	**20**	16	25	**13**	10	17	**4.5**	2.6	6.3	**0.9**
Present	8	**64**	50	70	**49**	41	52	**27.2**	20.3	29.9	**9.5**
Physical, Learning, or Emotional Condition Limits Ability to Go to School/Do School Work											
No	97	**22**	16	28	**15**	10	19	**5.8**	3.1	8.2	**1.5**
Yes	3	**56**	43	68	**42**	32	52	**24.3**	14.1	32.8	**6.6**
Physical, Learning, or Emotional Condition Limits Ability to Make Friends											
No	99	**23**	17	29	**15**	10	20	**6.0**	3.2	8.6	**1.5**
Yes	1	**66**	50	80	**52**	43	60	**26.5**	21.1	30.8	**12.2**
Number of Caring Adults											
None	16	**38**	29	50	**29**	21	40	**12.6**	7.6	19.0	**3.8**
1	21	**30**	22	35	**19**	13	24	**9.1**	4.4	12.2	**2.3**
2 - 3	36	**20**	14	26	**13**	8	18	**4.9**	2.3	7.2	**1.2**
4+	27	**17**	12	21	**10**	7	14	**3.2**	2.1	4.4	**0.7**
Number of Days Student Ate with Family											
None	11	**36**	27	42	**26**	20	30	**12.0**	7.9	15	**3.5**
1 - 2	18	**32**	24	37	**22**	15	27	**9.4**	5.6	11.9	**2.3**
3 - 6	45	**23**	17	28	**14**	10	18	**5.5**	2.7	8.0	**1.3**
Everyday	27	**16**	13	21	**11**	8	16	**3.7**	2.2	5.6	**0.9**
Adult Family Member Purposely Hit, Slapped, or Physically Hurt Student on Purpose[4]											
No	87	**20**	15	26	**13**	9	17	**4.5**	2.4	6.5	**1.1**
Yes	13	**47**	37	54	**38**	28	44	**19.1**	12.3	23.7	**5.4**
Ever Forced to Have Sexual Intercourse											
No	94	**22**	17	27	**14**	11	18	**5.2**	3.1	5.2	**1.2**
Yes	6	**53**	41	57	**42**	33	45	**26.6**	18.3	18.9	**8.8**

Demographics

Gender, grade, and socioeconomic status are all tied to suicidal behavior. Other characteristics, such as region of the state and school size, show only unremarkable differences, varying relatively little.

Gender. Although male adolescents are far more likely to make an attempt that results in death, females are more likely to make non-fatal attempts.[13] In 1999, 3.5 percent of males in the YRBS reported attempts compared to 9.2 percent of females (Table 2, part 1).

Grade. Suicide attempts were reported most often by freshman and least often by seniors; the proportion who attempted suicide declined from 8.0 percent to 4.1 percent, respectively. This trend, however, is the opposite of that seen among attempts that resulted in death; the number of deaths by suicide increases with age among teens.[13]

Socioeconomic Status. The socioeconomic status (SES) of the student's school showed a modest association with suicidal behavior.[12] Students attending a low SES school were 41 percent more likely to have attempted suicide (7.9% did so, compared to 5.6% of students at high SES schools). Measurement of the SES of individual students might reasonably yield more pronounced differences.

Students in schools with the lowest socioeconomic rankings were 41% more likely to report attempting suicide than those attending the highest ranked schools.

Student Health and Self-image

The health of a student is multifactorial in origin: genetic, behavioral, and environmental factors all play a role. Some can be ameliorated, others cannot.

Weight. Self-perceived bodyweight (image) is associated with suicidal behavior. While both very underweight (1.3% of all students) and very overweight students (3.5%) were more likely to attempt suicide, for both sexes being underweight was associated with the greater risk.

Medical Conditions. Students who have been diagnosed by health care professionals as having medical conditions present for one year or more (e.g., diabetes, asthma)

Throughout this report, and in their own words, are statements made by the students; they are reproduced as written and placed in quotes.

"I think if teenagers had at least one adult to talk to listen to them, teenagers would be better off. Adults tend to think that teenagers don't have emotional and mental needs BUT WE DO! I wish I had someone to talk to."

Figure 3. Percentage of High School Students Reporting That They Attempted Suicide, by Type of Medical Conditions and Types of Limitations, Oregon, 1999

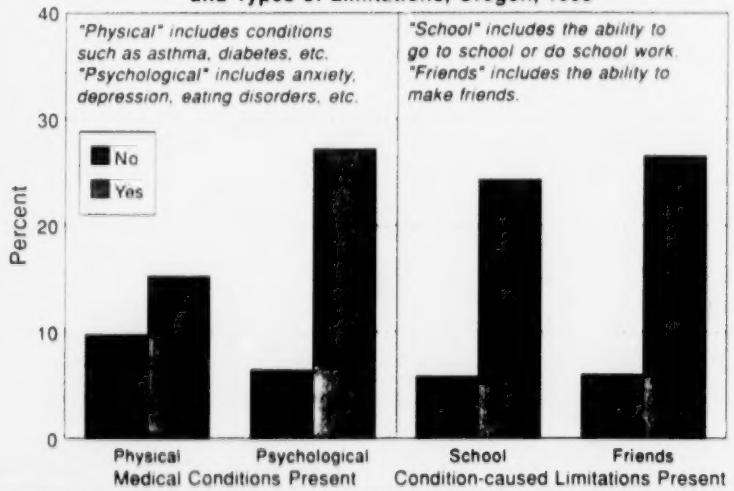

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Table 2. Percentage of Students Who Were Sad, Considered Suicide, Attempted Suicide, or Were Treated for an Attempt During the Previous Year, Oregon Youth Risk Behavior Survey, 1999 (Part 2)[1]

Characteristic	% with Characteristic	Sad[2]			Considered Suicide			Attempted Suicide			Treated
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Other Sexual Abuse											
No	82	**20**	16	23	**12**	10	15	**4.0**	3.0	5.2	**0.9**
Yes	18	**46**	37	48	**34**	28	35	**17.4**	10.7	18.9	**4.9**
Household Environmental Tobacco Smoke											
No smokers	64	**21**	15	27	**13**	9	17	**5.0**	2.8	7.2	**1.1**
Yes, but not inside	20	**29**	22	35	**20**	14	26	**8.8**	4.3	12.4	**2.3**
Yes, inside	16	**30**	24	36	**22**	16	29	**9.5**	5.7	13.1	**3.1**
Harassed at School: Race/Ethnicity[5]											
No	91	**22**	16	29	**15**	10	20	**5.6**	2.8	8.2	**1.4**
Yes	9	**41**	35	49	**29**	24	37	**15.1**	9.8	23.4	**4.1**
Harassed at School: Sexual Orientation[5]											
No	93	**22**	16	28	**15**	10	19	**5.7**	2.7	8.4	**1.4**
Yes	7	**44**	37	54	**34**	27	43	**16.7**	12.5	22.2	**5.5**
Harassed at School: Unwanted Sexual Attention[5]											
No	78	**19**	16	24	**12**	10	16	**4.3**	2.7	6.4	**1.0**
Yes	22	**41**	36	43	**30**	23	32	**13.8**	10.5	14.8	**3.9**
Number of Times Threatened or Injured at School[4]											
None	94	**23**	16	29	**15**	10	20	**5.6**	2.5	8.4	**1.3**
1 - 5	5	**44**	37	59	**33**	25	52	**17.4**	11.1	31.6	**6.2**
6+	1	**48**	46	56	**41**	37	55	**23.4**	23.2	24.2	**12.1**
Number of Cigarettes Smoked Daily on Days Smoked[3]											
None	75	**20**	15	24	**13**	9	16	**4.6**	2.6	6.4	**1.0**
<1 - 5	19	**35**	26	43	**26**	17	33	**11.2**	5.8	15.8	**2.9**
6 - 20	5	**42**	28	55	**28**	17	37	**13.6**	7.1	19.2	**4.9**
21+	<1	**49**	40	62	**40**	40	40	**28.6**	21.4	38.5	**9.5**
Age First Smoked											
<11	9	**37**	29	49	**29**	21	40	**15.1**	8.9	24.0	**4.6**
11 - 14	12	**33**	22	44	**23**	13	32	**9.6**	3.7	15.5	**2.9**
15+	27	**29**	20	36	**19**	13	24	**8.0**	4.1	11.2	**2.1**
Never	51	**17**	13	21	**11**	7	14	**3.4**	2.0	4.7	**0.6**
Number of Days Drank Alcohol[3]											
None	56	**19**	14	23	**11**	8	15	**3.9**	2.0	5.6	**0.8**
1 - 5	31	**28**	19	36	**20**	13	27	**8.7**	4.3	12.3	**2.2**
6 - 20	11	**34**	26	44	**25**	17	34	**11.0**	6.0	17.1	**3.7**
20+	2	**40**	31	62	**31**	24	47	**13.9**	8.9	25.0	**5.7**
Age First Drank Alcohol											
<11	16	**34**	27	46	**26**	19	36	**11.6**	7.2	18.3	**3.4**
11 - 14	13	**32**	23	41	**21**	14	29	**9.8**	4.9	14.3	**3.2**
15+	42	**25**	17	32	**17**	11	22	**6.5**	2.9	9.3	**1.5**
Never	29	**13**	11	16	**8**	6	10	**2.5**	1.5	3.4	**0.5**
Number of Times Drinking and Driving[3]											
None	90	**23**	17	29	**15**	10	22	**6.0**	3.1	8.6	**1.5**
1 - 3	8	**30**	23	41	**21**	15	30	**8.6**	4.3	14.5	**2.6**
4+	2	**33**	25	52	**23**	18	34	**13.8**	11.6	19.3	**6.2**

were more apt to report attempting suicide, 9.7 percent vs. 5.7 percent of those who reported no medical conditions (Figure 3). The YRBS questionnaire also asked students if they had been diagnosed with depression, anxiety, or eating disorders; those who had were six times more likely to report attempting suicide (27.2% vs. 4.5% who had not). In psychiatric studies of adolescents who committed suicide, only a very small minority was found to be free of discernible disorders.[26, 27]

Activity Limitations. Among the students with diagnosed physical or mental conditions, 7.6 percent reported that these conditions limited their daily life. Students who had conditions that limited their ability to go to school/do school work as well as those who felt limited in their ability to make friends were about six times more likely to report attempting suicide than students without such limitations.

Home Environment

Although most students are brought up in healthy and nurturing environments, too many are not. Survey questions, such as, the number of adults students could go to discuss their problems and the presence of physical/sexual abuse, provide insight into the life experienced by Oregon's youth.

Caring Adults. One in six students (16%) does not have at least one caring adult that they can talk to about their problems (Figure 4). These adolescents were four times more likely to attempt suicide than were those with four or more caring adults (12.6% vs. 3.2%). Students who said they had no caring adult to talk to were more likely to have been physically and sexually abused, and to report emotional problems. Among youth with a psychiatric diagnosis and an inability to make friends, 44 percent of those with no adult to whom they could turn to reported attempting suicide.

Family Interaction. Two measures of family interaction and connectedness yielded unsurprising results. The more often a student ate with family members the less likely he or she was to attempt

An estimated 26,000 students do not have an adult they can talk to about their problems.

Figure 4. Percentage of High School Students Reporting That They Attempted Suicide, by Number of Caring Adults and the Number Of Days They Ate Meals with Their Families, Oregon, 1999

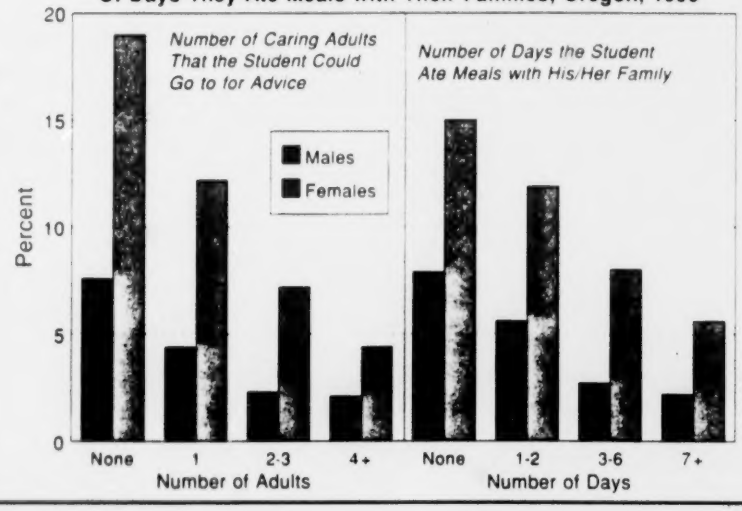

Table 3. Percentage of Students Attempting Suicide, by Abuse and Caring Adults

Situation	Total	Male	Female
No abuse, 2+ caring adults	1.9	1.4	2.5
Physical abuse only*	12.1	10.2	14.3
Sexual abuse only*	12.7	6.9	14.0
Physical and sexual abuse*	30.6	21.8	32.8
Physical and sexual abuse, no caring adults	40.3	34.8	41.9

* Any number of caring adults.

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"When I was younger I was sexually abused a little by my mom's boyfriend. She doesn't know but it's Ok."

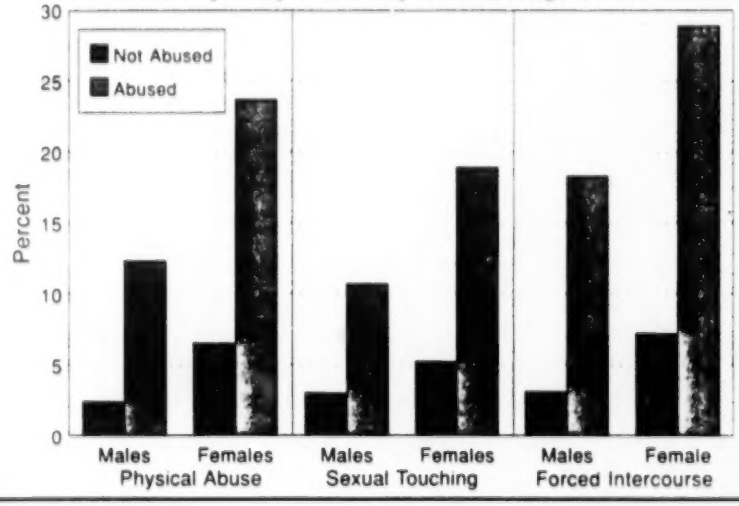
suicide and the more hours spent watching television, the more likely the student was to attempt suicide.

Physical Abuse. Two of every 15 students (13.2%) said they had been intentionally hit, slapped, or physically hurt by an adult family member, 11.0 percent of males and 15.2 percent of females. These youths were more than four times as likely to attempt suicide than those who had not been physically abused (19.1% vs. 4.5%). The Third National Incidence Study of Child Abuse and Neglect (NIS-3) found that children from the lowest income families were 22 times more likely to be seriously injured from physical abuse than were those in the highest income families.[22]

Sexual Abuse. One in five students (19.4%) reported that they were victims of some kind of sexual abuse (either forced intercourse or unwanted sexual touching), 7.9 percent of males and 30.5 percent of females. These young Oregonians were substantially more likely to try to kill themselves than were those free from sexual abuse, with the risk differential more pronounced among males. Not surprisingly, students who were forced to have intercourse were at the greatest risk of suicidal behavior (Figure 5). The NIS-3 found that children in the lowest income families were 18 times more likely to be sexually abused than those in the wealthiest families.[22]

A child who is sexually abused may also be physically abused; these dually abused youth (4.8% of the respondents) were more than ten times as likely to try to kill themselves than those free of these abuses. Riggs et al concluded that "At the very least, psychologic difficulties stemming from abuse may serve as catalysts for problem behaviors during the vulnerable period of adolescence."[24] In a review of abuse studies, Silverman and her colleagues noted that young adults who were abused during childhood or adolescence were at greater risk of a variety of short- and long-term impairments including sexual distur-

Figure 5. Percentage of High School Students Reporting That They Attempted Suicide, by Whether They Reported Ever Having Been Physically or Sexually Abused, Oregon, 1999



bances, anxiety and fear, low self-esteem, depression, aggressive behavior, and interpersonal problems.[25]

Household Smoking. A final measure of the nature of the student's household is the presence or absence of smoking by household members. Because smoking is more common among persons with less education and lower household income, it can be considered a rough indicator of the socioeconomic status of the student's family.[28] In nearly four in ten households (36%), someone (other than the student) smoked; in 44 percent of those households with a smoker, someone smoked inside the home.[29] Adolescents in homes with second-hand smoke attempted suicide more often (9.5% compared to 5.0% in homes with clean air).

School Environment

Although no clear trends are apparent in suicidal behavior vs. school size, other notable associations do exist: harassed and threatened students were more likely to attempt suicide.

Harassment. Almost one-third (29%) of students reported being harassed at school during the previous 30 days; as a group, they were up to seven times more likely to attempt suicide than those who were not victimized (Table 4). As the number of types of harassment increased, so did the likelihood that a student would try to kill himself/herself. Table 2, part 2 shows the risk by individual type of harassment; just three types of harassment were measured.

Violence. Six percent of students said they had been threatened or injured *with a weapon* such as a gun, knife, or club on school property during the previous 12 months (Table 2, part 2). One percent reported six or more incidents. Almost one-quarter (23.4%) of those in the latter group attempted suicide compared to just 4.3 percent of those who had not been threatened or injured, a five-fold difference.

Personal Behaviors

Youth engaging in one risky behavior are likely to also engage in others and these risk-taking behaviors can serve as markers of potential suicidal behavior. With the exception of a diagnosis of a psychological disorder, substance abuse and sexual behavior are among the strongest indicators (from the YRBS) of potential suicidal behavior.

Cigarette Smoking. One-fourth of the students (25%) reported smoking during the previous 30 days. Heavy cigarette smoking is one of the most visible warning signs that a teen may be contemplating a suicide attempt; more than one-fourth of heavy smokers (21 or more cigarettes per day) said they tried to kill themselves, a six-fold difference compared to non-smokers (28.6% vs. 4.6%). Furthermore, the younger the age of initiation, the greater the risk.

Alcohol Consumption. Frequent alcohol consumption is also associated with suicide attempts. While nearly half (46%) of students drank alcohol during the previous month, and were at greater risk of suicidal behavior, those who drank on 20 or more of the previous 30 days were at greatest risk, 13.9 percent attempted suicide compared to 3.9 percent of abstainers (Figure 6). (Both students who were passengers of drinking drivers, and those who did not use seatbelts, were also more likely to say they attempted suicide.)

"My one really unhealthy habit of life is wanting to die. My friends know about it but not my teachers or parents. I'm getting over my suicide trip with help of my boyfriend and best friends."

One in four pack-a-day smokers attempted suicide.

Table 4. Percentage of Students Attempting Suicide, by Number of Types of Harassment*

# of Types	% Who Were Harassed	% Who Attempted
None	70.6	3.7
One	22.9	11.0
Two	5.3	19.1
Three	1.2	25.2

* Including sexual, racial/ethnic, and perceived sexual orientation.

Table. 2 Percentage of Students Who Were Sad, Considered Suicide, Attempted Suicide, or Were Treated for an Attempt During the Previous Year, Oregon Youth Risk Behavior Survey, 1999 (Part 3)[1]

Characteristic	% with Characteristic	Sad[2]			Considered Suicide			Attempted Suicide			Treated
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Frequency of Seatbelt Use											
Never	1	32	26	54	23	18	38	15.0	11.8	26.6	7.7
Rarely	3	30	25	42	21	17	31	10.2	7.7	15.3	3.9
Sometimes	7	31	22	43	22	14	33	10.0	5.2	16.4	2.3
Most of the time	25	26	19	33	19	12	26	8.0	3.4	12.3	2.1
Always	64	22	16	27	14	10	18	5.1	2.7	7.1	1.2
Number of Times Sniffed Inhalants[5]											
None	98	23	17	29	15	11	20	6.1	3.3	8.6	1.5
1 - 2	2	46	34	58	40	25	55	22.0	10.4	32.7	5.4
3+	1	53	48	59	48	39	60	24.8	16.0	35.8	12.4
Number of Times Used Marijuana[5]											
None	79	21	15	26	14	9	18	5.0	2.8	7.0	1.1
1 - 2	8	34	25	43	25	16	32	11.2	5.5	16.5	2.5
3+	14	35	25	47	26	18	35	12.2	6.3	19.8	4.5
Number of Times Ever Used Methamphetamines											
None	92	22	16	28	15	10	19	5.6	2.8	8.2	1.2
1 - 2	3	44	32	56	30	21	39	14.6	9.9	18.7	4.9
3+	4	47	38	55	34	25	41	18.1	13.2	22.3	7.9
Ever Injected Illicit Drugs											
No	99	24	17	30	16	11	20	6.1	3.2	8.9	1.5
Yes	1	51	39	68	41	29	56	27.8	20.8	37.2	13.5
Number of Mood-Altering Substances Used[6]											
None	52	17	13	20	10	7	13	3.1	1.7	4.4	0.5
1	21	26	18	33	18	12	24	7.2	3.9	10.1	1.6
2	13	30	23	38	21	15	27	9.5	5.5	13.2	2.8
3	10	35	24	47	26	17	34	10.9	4.8	16.8	3.0
4	3	46	36	56	35	25	46	16.6	8.0	25.6	5.1
5	1	51	42	59	36	26	45	22.2	15.9	28.1	8.2
6+	1	54	42	69	46	34	60	30.4	23.1	37.7	17.4
Age at First Sexual Intercourse											
<13	3	35	30	42	28	23	43	14.0	10.2	26.6	4.5
13 - 14	10	34	27	34	23	17	29	10.2	5.2	15.7	2.8
15 - 16	16	28	21	29	19	14	24	7.4	4.8	9.6	2.0
17+	5	24	20	23	15	13	17	4.4	3.0	5.9	1.2
Never	67	18	14	23	12	8	15	3.6	1.9	5.2	0.6
Total Number of Sexual Partners											
None	67	18	14	23	12	8	15	3.6	1.9	5.2	0.6
1 - 2	21	28	22	35	19	15	23	7.4	4.6	10.1	2.0
3 - 5	8	32	26	39	22	17	28	9.0	5.5	13.0	2.5
6+	4	35	29	45	25	19	37	12.2	7.9	20.1	4.2

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Like cigarette smoking, alcohol consumption at an early age was associated with a greater risk of suicidal behavior; students who began drinking when they were 10 or younger were five times more likely report attempting suicide than those who did not drink (11.6% vs. 2.5%).

Inhalant Abuse. One of every 50 Oregon high school students reportedly sniffed glue (or otherwise abused inhalants such as spray paints) during the 30 days prior to the survey, and the more often they did this, the more likely they were to have attempted suicide. One in four (24.8%) of those who "huffed" on three or more days of the previous month said they tried to kill themselves, four times higher than the 6.1 percent recorded for abstainers.

Drug Abuse. Drug abuse was widespread among the state's high school students with one in five (21%) using marijuana, the most commonly abused substance. As with most substance abuse (e.g., tobacco and alcohol), the greater the abuse, the greater the odds that the youth would attempt suicide. The single best substance abuse predictor of suicidal behavior was injection drug abuse; students who injected drugs were more than four times more likely to attempt suicide (27.8% vs. 6.1%).

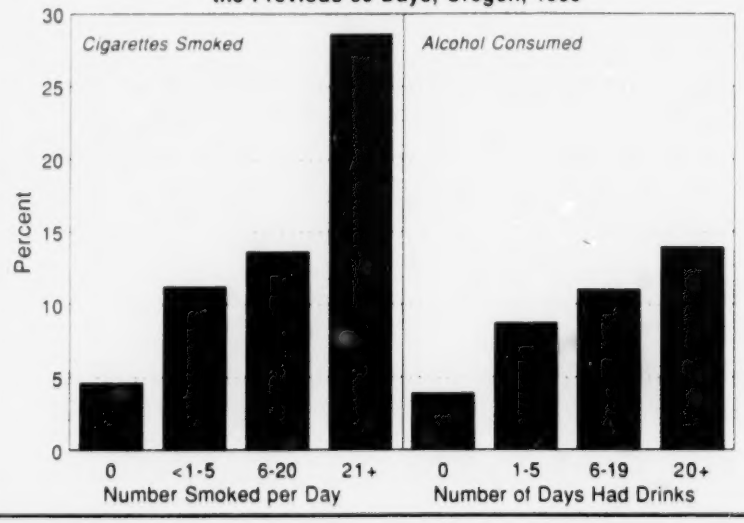
Polysubstance Abuse. Use of multiple substances is clearly associated with an increased risk of suicide attempts. One-half of the students said they used alcohol, tobacco or other drugs.[31] Those who used six or more substances were nearly ten times more likely to say they tried to kill themselves than were students who reported no substance abuse, (30.4% vs. 3.1%). For many adolescents in emotional pain, drugs and alcohol may be a way of numbing feelings of rejection and despair, but ultimately drug addiction itself can heighten, or lead to, despair.[32]

In a national study, substance abuse by parents was also linked to suicide attempts by their children; runaway and homeless youth whose family members were substance

Inhalant and injection drug use were strongly linked to suicidal behavior.

"My unhealthy behaviors are numerous, some or most of which revolve around suicide. Not very healthy but, the way I see it, it is a way out."

Figure 6. Percentage of High School Students Reporting That They Attempted Suicide, by Cigarette and Alcohol Use During the Previous 30 Days, Oregon, 1999



abusers were twice as likely to attempt suicide as were those whose parents were not substance abusers.[33]

Sexual intercourse with multple partners during the prior three months was strongly associated with suicide attempts.

Sexual Behavior. Sexual intercourse at an early age, regardless of whether it was forced for unforced, was associated with sexual abuse and suicidal behavior. (However, this does not mean that sexual intercourse at an early age, in and of itself, causes youth to attempt suicide.) One-third (33%) of high school students reported having had unforced sexual intercourse. (Students who reported having been forced to have intercourse are excluded from his discussion; for information about youth who were forced to have intercourse, see page 8.) As with tobacco and alcohol abuse, the younger a student was when he or she first had sex, the greater the odds that he or she would attempt suicide; the preteen group was four times more likely to attempt suicide than were abstainers (14.0% vs. 3.6%).[34] Youth who had six or more sexual partners by the time of the survey were three times more likely to attempt suicide than those who had none (12.2% vs. 3.6%) while those who had sex with two or more persons during the previous three months were about four times more likely to attempt suicide than were abstainers (14.2% vs. 3.6%), with females at the greatest risk (Figure 7).

One in ten sexually active youth reported becoming pregnant or causing a pregnancy. This small minority of students was about three times more likely to report attempting suicide than were abstainers, 12.9 percent compared to 3.6 percent.

Sexual intercourse and drug abuse are interrelated; among substance (tobacco, alcohol, or other drug) abusers, 54 percent were sexually active, but among nonabusers only 16 percent were sexually active. Substance abusers were four times more likely to become pregnant or to cause a pregnancy. Figure 8 shows the risk of attempting suicide by sexual history and number of substances abused. See

"My friends keep me from doing stupid things like committing suicide, but they don't know it."

"All this teenage angst is a result of pain & suffering. Suicide, pregnancy, drugs all are a solution to our feelings of sadness, low self-esteem & isolation."

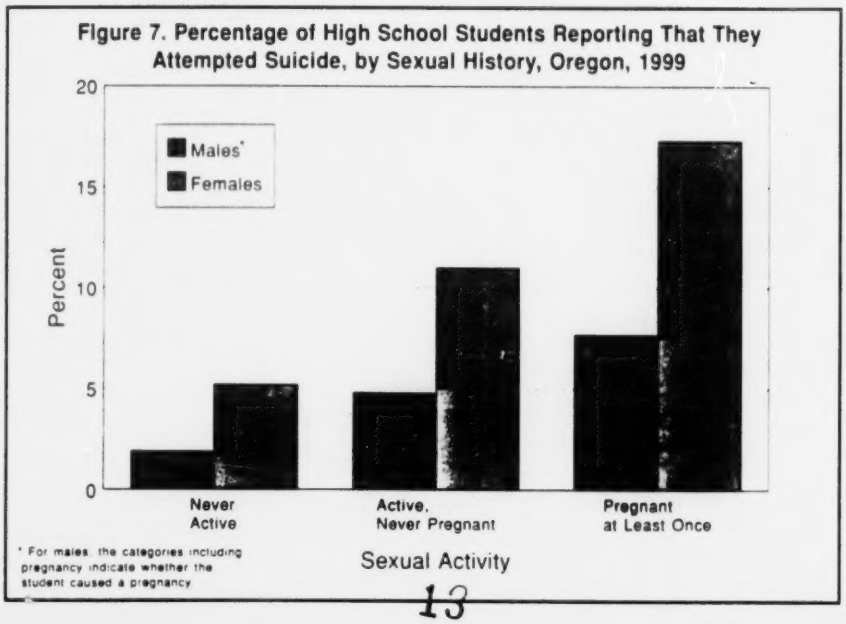


Figure 7. Percentage of High School Students Reporting That They Attempted Suicide, by Sexual History, Oregon, 1999

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Table. 2 Percentage of Students Who Were Sad, Considered Suicide, Attempted Suicide, or Were Treated for an Attempt During the Previous Year, Oregon Youth Risk Behavior Survey, 1999 (Part 4)[1]

Characteristic	% with Characteristic	Sad[2]			Considered Suicide			Attempted Suicide			Treated
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Number of Sexual Partners (Last Three Months)											
Never sexually active	67	**18**	14	23	**12**	8	15	**3.6**	2.0	5.3	**0.6**
Yes, but over three months ago	11	**27**	22	37	**19**	15	25	**7.1**	4.3	11.7	**1.3**
1	18	**30**	23	35	**20**	15	23	**7.6**	4.5	10.1	**2.4**
2+	5	**33**	28	41	**26**	20	37	**14.2**	9.7	21.9	**4.8**
Ever Caused Pregnancy or Been Pregnant											
Neve. sexually active	67	**18**	14	23	**12**	8	15	**3.6**	1.9	5.2	**0.6**
Sexually active, never pregnant	30	**29**	23	35	**20**	15	25	**7.8**	4.8	11.0	**2.1**
Pregnant at least once	3	**39**	32	46	**25**	19	30	**12.9**	7.6	17.3	**4.5**
Carried Any Weapon[5]											
No	86	**23**	15	29	**15**	9	20	**5.7**	2.1	8.4	**1.3**
Yes	14	**29**	26	46	**23**	19	44	**10.5**	7.5	25.2	**3.7**
Carried a Gun[5]											
No	96	**24**	17	28	**16**	10	21	**6.1**	2.8	8.9	**1.5**
Yes	4	**27**	25	39	**22**	20	35	**13.0**	10.8	25.6	**5.7**
Number of Environmental Risk Factors[7]											
None	15	**8**	6	11	**4**	3	5	**0.9**	0.3	1.6	**0.2**
1	22	**10**	9	12	**6**	5	8	**1.1**	0.5	1.7	**0.1**
2	22	**18**	15	21	**10**	8	13	**2.8**	1.9	3.8	**0.4**
3	16	**26**	21	30	**16**	12	19	**5.3**	3.2	7.2	**1.1**
4 - 6	21	**43**	35	48	**31**	25	35	**13.6**	9.5	16.0	**3.3**
7 - 9	4	**67**	57	72	**54**	45	59	**31.3**	22.2	35.3	**9.9**
10+	1	**84**	80	86	**74**	64	80	**57.1**	45.0	63.6	**27.9**
Number of Behavioral Risk Factors[8]											
None	31	**12**	8	16	**7**	4	8	**1.7**	0.6	2.5	**0.2**
1	15	**21**	17	26	**14**	9	19	**4.3**	2.4	6.2	**0.5**
2	13	**25**	17	32	**16**	9	22	**5.7**	2.6	8.5	**1.1**
3	9	**28**	19	36	**18**	12	24	**7.1**	3.6	10.2	**1.6**
4 - 6	21	**32**	23	41	**23**	16	30	**10.7**	5.9	15.5	**3.0**
7 - 9	9	**40**	27	56	**31**	20	47	**14.2**	6.7	24.1	**4.7**
10+	2	**51**	40	74	**37**	27	57	**25.8**	16.2	45.3	**11.6**

1. Based on 22,913 weighted cases from 109 schools.

2. An affirmative response to the question "During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing to some usual activities?"

3. The Oregon Department of Education assigns a numeric value to each school in the state based on the percentage of students eligible for free or reduced price lunch, student mobility rate, student attendance rate, and the level of education of the most educated parent.

4. During the previous 12 months.

5. During the previous 30 days.

6. The number of types of substances used by students was measured with eight questions. Affirmative responses to the use of marijuana, cocaine, inhalants, heroin, methamphetamines, injection drugs, tobacco, and alcohol were counted.

7. A count of the following factors: physically assaulted by an adult family member, sexually abused (either by unwanted touching or forced intercourse), sexual harassment, racial harassment, perceived sexual orientation harassment, physical health condition, psychological health condition, a condition that affects the student's ability to go to school/do school work or make friends, living with smokers, watching five hours or more of television on the average school day, not eating a daily meal with family, and having fewer than two adults to go to for advice.

8. A count of the following factors: not using a seatbelt at least most of the time, smoking cigarettes, drinking alcohol, drinking and driving, binge drinking, vomiting or using laxatives to lose weight, carrying a gun or other weapon, participating in fights, marijuana use, cocaine use, methamphetamine use, heroin use, inhalant sniffing, drug injection, sexually active, failure to use a condom during last sexual intercourse, ever caused or been pregnant.

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"I don't like how people tease me about being gay."

"Well my hole life has been real bad since I was eight yrs old. I have tried to commit suicide but never really complete it. I have always been real depressed all the time. Who can I talk to? Who can help me? What should I do?"

Among youth who attempted suicide, 22.9% carried some kind of weapon and 8.3% carried a gun.

the forthcoming issue of *Oregon Health Trends*, entitled "Sexual Activity Among Oregon Teens Age 15-17: Survey Results, 1999" for further information.

Sexual orientation. Same-sex sexual orientation is generally accepted as a related underlying cause of teen suicidal behavior. The issue cannot be addressed from the YRBS, however, because no question regarding sexual orientation was included in the survey. One question, however, asked the students whether they had been harassed for their *perceived* sexual orientation in the previous 30 days. One in 15 of all respondents said they had been harrassed because they were thought to be gay, lesbian, or bisexual. These students were three times more likely to say that they attempted suicide than were their non-harassed peers (16.7% vs. 5.7%). Among those perceived to be gay, lesbian, or bisexual, harassed males were 4.6 times more likely than their non-harassed counterparts to attempt suicide while females were 2.6 times more likely. Data from Minnesota showed that gay and bisexual males in grades 7-12 reported attempting suicide seven times more often than did their heterosexual counterparts.[35]

Weapon-Carrying. During the month prior to the survey, 14.0 percent of students carried a gun, knife, and/or club; 4.1 percent carried guns. Weapon carriers were over twice as likely to report attempting suicide (12.6% vs. 5.9%).

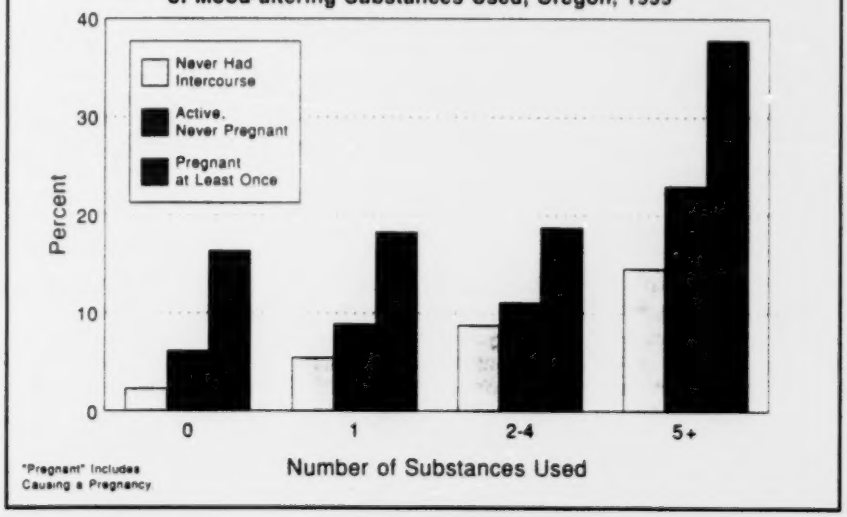
CONCLUSIONS

Youth at Risk

Suicide is a persistent problem among Oregon's youth. Parents, educators, health care professionals and others need to recognize that today's social milieu is prompting more adolescents to commit suicide than a generation ago.

Among suicide attempters, there is a spectrum of desires, from cries for help to death. Many are ambivalent about ending their lives; they see suicide as the solution to their problems in life, but would rather live if a solution could be found.[36] There is a continuum of

Figure 8. Percentage of High School Students Reporting That They Attempted Suicide, by Sexual History and Number of Mood-altering Substances Used, Oregon, 1999



self-destructiveness (from subintentional to intentional) that can be measured in adolescents; these behaviors and characteristics relate to premature adult mortality, whether from natural, accidental or suicidal causes. In a recent study, measures of conduct problems and emotional instability were lowest for persons dying from natural causes of death, higher in persons dying from unintentional injuries, and highest among those who committed suicide.[37] The YRBS data show that as the total number of risk factors increases so does the likelihood of a suicide attempt (Figure 9). Even if adolescents do not make overt suicide attempts, they may still engage in inherently risky and self-destructive behavior that requires counseling.

Youth Risk Behavior Survey data suggest that 2,800 Oregon high school students were treated by a physician or nurse for injuries resulting from a suicide attempt during the 12 months prior to the survey. These young Oregonians are a diverse population but often share certain characteristics that can be used in identifying those at risk and targeting them for counseling and intervention. The best individual behavioral characteristics (from the YRBS) for identifying high school students at risk of making suicide attempts are: injection drug use, frequent use of inhalants and/or tobacco; depression; and physical limitations that affect schooling and/or the ability to make and keep friends.

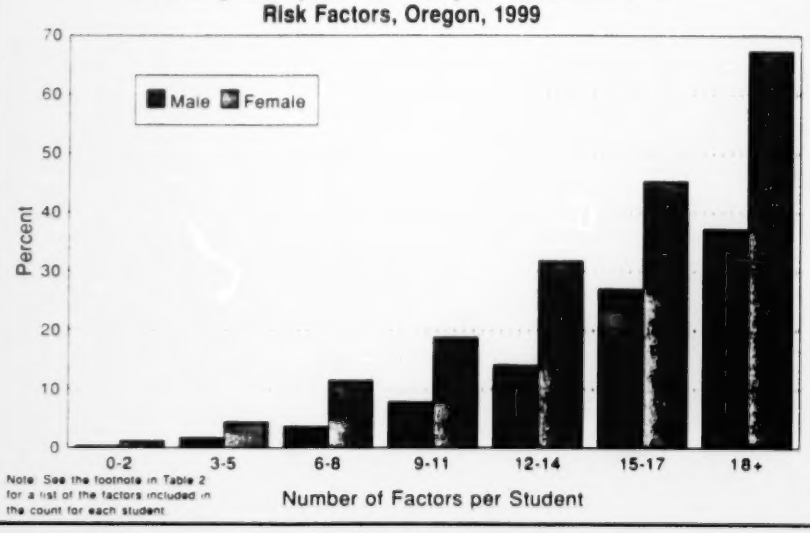
These are by no means the only risk factors associated with suicidal ideation and attempts. Self-destructive behavior is also strongly linked with a number of other characteristics and life events, many arising in unfavorable home environments.

A limitation of this study is the inability to identify the minority of students who engage in suicidal behavior but who do not exhibit any behaviorial or school-related problems. Instead, these youth, who may even be academic superstars, experience anxiety and may be rigid and perfectionistic.[39] Periods of change or dislocation can precipi-

"Sometimes I get depressed, not really bad, but just about certain things in life that bother me. I often cry when this happens. Usually I've got a friend there to help me. Without my friends I'd be lost in life. But there are those few times when friends aren't available."

"I feel that we should have someone come talk about suicide here. It's very important."

Figure 9. Percentage of High School Students Reporting That They Attempted Suicide, by the Total Number of Risk Factors, Oregon, 1999



Note: See the footnote in Table 2 for a list of the factors included in the count for each student.

Table 5. Suicide Death Rates by County of Residence, Oregon Youth Ages 10-24, 1987-1997

Region	Rate	Number
United States	9.2	55,283
Oregon	12.0	809
Baker	*	4
Benton	7.5	18
Clackamas	9.6	63
Clatsop	16.1	12
Columbia	5.5	5
Coos	11.1	14
Crook	*	4
Curry	18.9	6
Deschutes	11.4	20
Douglas	16.8	36
Gilliam	*	0
Grant	*	0
Harney	33.4	5
Hood River	20.4	8
Jackson	10.7	36
Jefferson	38.4	13
Josephine	6.2	8
Klamath	12.1	17
Lake	*	4
Lane	11.8	85
Lincoln	12.3	9
Linn	15.7	34
Malheur	7.5	5
Marion	13.4	75
Morrow	*	0
Multnomah	14.2	183
Polk	8.9	12
Sherman	*	1
Tillamook	*	3
Umatilla	12.8	19
Union	*	4
Wallowa	*	2
Wasco	21.4	10
Washington	10.4	79
Wheeler	*	1
Yamhill	8.0	14

Note: Rates per 100,000 population; rates are not shown for counties with <5 deaths.

Youngest Oregonians to commit suicide:
1996-98 - Two 10-year-old boys who hung themselves.
Ever - A seven-year-old boy who shot himself.

tate an attempt even though they appear not to be at risk.[27] Recent studies have also shown that suicide has a genetic component, one that is independent of depression.[40, 41]

Some teenagers romanticize suicide, imagining a large funeral that will be attended by those who have been nasty or uncaring and who are now filled with remorse and sadness. They may also believe that they will be reunited with others who have died. Such romanticization can increase the risk of suicide.[42]

In a review of studies, certain personality traits were found to be particularly characteristic of suicide attempters: aggression or hostility, impulsivity, societal withdrawal or interpersonal difficulties, low self-esteem, dependency, hopelessness, an external locus of control, rigid cognitive style, and poor problem-solving.[43] Exposure to a suicide or suicide attempt by a family member or friend may also precipitate suicidal behavior.[44, 45] However, there is no "typical" suicidal adolescent. Each suicide is an individual act influenced by a diverse set of social and personal factors that are not always apparent.

Threats or warning signs precede as many as 80 percent of suicide attempts and completions, and although the majority of the threats are not followed by actions, all suicidal communications should be taken seriously, responded to, and evaluated.[46]

Parents often do not recognize a child's suicidal symptoms, or if they do, may feel ill-equipped to intervene.[47-49] Yet without intervention, at-risk youth may commit suicide. School staff and youth themselves should also be aware of the indicators of potential suicide risk, and should tell those in a position to help if they see someone exhibiting signs of suicidal behavior. Health care workers, too, have an important role to play in ameliorating this self-destructive behavior. There is strong evidence that adolescents often seek general medical care shortly before their suicidal behavior.[50, 51] Primary health care providers should consider the potential for self-destructive behavior regardless of the adolescent's presenting complaint.[52] No less than 35 percent of Oregon attempters have made prior attempts.[53] A previous suicide attempt is the best predictor of future suicidal behavior; among attempters, 10 percent to 20 percent will ultimately die by suicide.[54] Without intervention, a non-fatal suicide attempt may be followed by one that results in death.

SUICIDE MORTALITY

Few Oregon communities have not been touched by the tragedy of youth suicide. In fact, the risk is greatest where resources are often most limited. Like adults, teens living east of the Cascade Mountains are generally at greater risk of suicide than those living in western Oregon (Table 5).

Most reported suicide attempts by Oregon adolescents are made by overdosing with medications; about half of these attempts are made with analgesics, often acetaminophen (e.g., Tylenol).[53] Unfortunately, many youth are unaware of the potential long-term effects of drug overdoses (e.g., liver toxicity); in one study, 41 percent of high school students underestimated the potential lethality of acetaminophen, and 17 percent believed that one could not ingest enough of the drug to cause death.[55]

While 72 percent of suicide attempts by Oregon's youth (age 15-17 years) during 1996-1998 involved ingestion of drugs, 74 percent of youth suicides involved firearms.[56] Because of the high likelihood of death when firearms are used, parents and others should restrict access to these highly lethal weapons among youth at high-risk of suicidal behavior. When a firear[illegible] is used, there is rarely a second c[illegible]nce.

In 16 percent of Oregon homes where both firearms and children are present, the firearms are kept loaded and unlocked.[57] In another study, nearly one in four adolescents with a history of both substance abuse and suicide attempts lived with families who still kept a firearm in the home.[58] Increased availability of firearms in the home is one of the most frequently cited findings associated with both the observed increased incidence of youth suicide and the increased use of firearms in suicides.[58]

PREVENTION

The mental health needs of many Oregon adolescents are not being addressed. The YRBS revealed that of the 7.7 percent of respondents who reported having personal or emotional health care needs, one-third (31%) did not get appropriate care. Statewide, an estimated 7,600 public high school students had unmet needs. In a national YRBS study, a similar rate of forgone care among adolescents was found. In both studies, there was a correlation between unmet needs and engaging in risk behavior(s).[70] In sum, YRBS has consistently shown that critical mental health needs among Oregon adolescents have gone unmet for at least the past six years. During the 1998-99 school year, 44 schools in Oregon had on-site school-based health centers to serve the medical

"I think that teachers and staff members need to pay more attention to kids who are depressed a lot. When they get in these depressions, many become violent and may harm others or attempt suicide. If we all just show a little more concern & compassion, that would be a real plus."

Percentage of sucide attempts with guns that are fatal: 85

"I don't want to talk to a stupid adult! Counselors are dumb."

"No one really cares about students at [my] high school. If your grades fail you dont graduate and if you dont graduate and and if your depressed no counselers are here to help. Students today have to be motivated to take care of themselves because if you lose a parent or needs aren't met your on your own here and the faculty do not give a damn about what happens to you."

Suicide Prevention Strategies

- A public education campaign on suicide warning signs and intervention.
- Suicide prevention education for youth and young adults in school and community settings.
- Education on the restriction of access to lethal means.
- Increased physical and emotional safety in schools.
- Media education about appropriate suicide reporting.
- Suicide prevention education for professional human service providers.
- Suicide intervention training for community members.
- Depression/suicide ideation screening and referral.
- Increased crisis line utilization.
- Enhanced crisis response services.
- Increased access to affordable mental health and substance abuse treatment.
- Skill-building support groups for youth at high suicide risk in school and community settings.
- Support for suicide survivors.
- Improved suicide data collection and program evaluation

"Personal and emotional problems is where it all starts. If the kids are not spending time with their family, then they will have some personal/emotional problems to deal with. So if the school had a counsilor who was their friend then the kid would not do bad things to him/her self or others."

"For the past two months my life has been a living hell. I don't believe in a god & I have no one to really talk to. It would have been good to sit down & get things off my chest. Any school that can should have some type of psychiatrist or person besides the counselors to talk to."

"I believe there should be more than 4 counselors at our school, because if I have an important problem most of them are busy so I can't talk to anyone."

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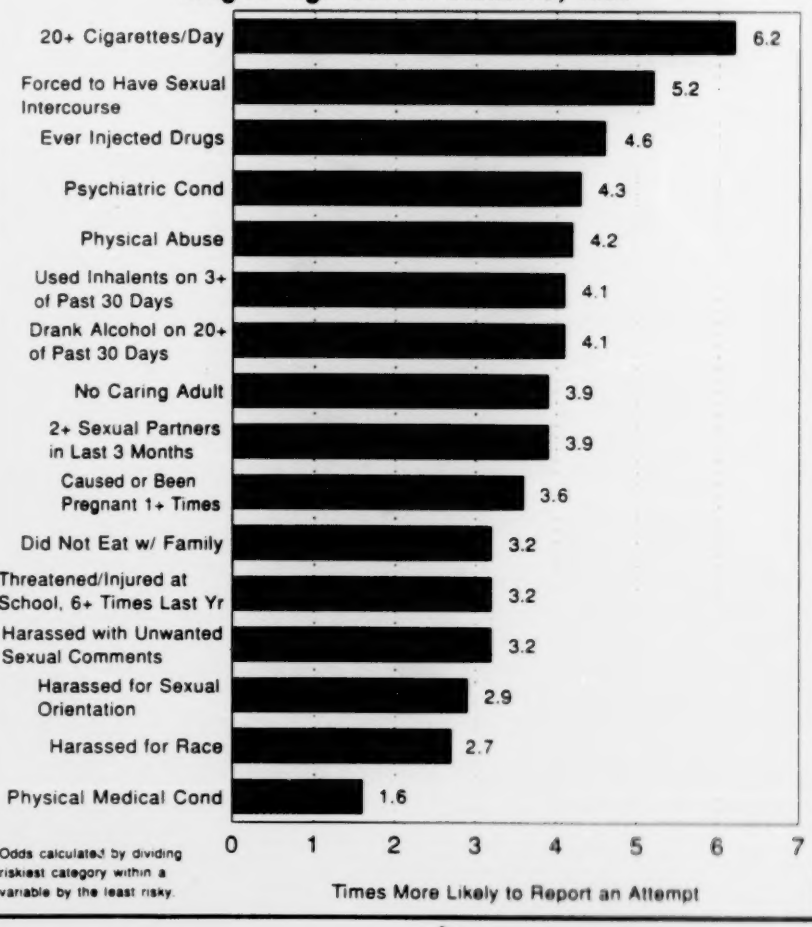
needs of their students. Eighteen percent of all student visits to school-based health centers resulted in a mental health-related diagnosis, but many students did not have access to school-based health centers or other forms of treatment and support.

Suicidal behavior is a complex phenomenon that requires a comprehensive, multifaceted, and multileveled prevention approach with strategies focusing on: individuals at high risk of suicide; high-risk youth populations; and the general public.

Suicide prevention strategies at the individual, high-risk group, and general public levels are being incorporated in a statewide plan for youth suicide prevention at the Oregon Department of Human Services, Health Division. The plan may include strategies such as those noted on page 17.

Efforts are already underway in some Oregon communities to implement local and statewide youth suicide prevention strategies including depression screening and referral, public education campaigns, and gatekeeper training but

Figure 10. Odds of Reporting Having Made a Suicide Attempt During the Previous 12 Months, by Selected Risk Factors, Oregon High School Students, 1999



significant reductions in Oregon's youth suicide rate will require substantial, long-term local, regional, and statewide collaboration and coordination. This can be achieved only through sustained public support and political will, across a broad spectrum of individuals and organizations.

Adolescence is a time of rapid change and identity development. Suicide prevention must address the many biological, psychological, behavioral, and sociocultural risk factors whose interaction within a particular individual may result in depression, hopelessness, and despair. Mood swings, alcohol/drug abuse, low self-esteem, identity development, confusion, isolation, relationship breakup, loss of family members or friends, stress, unrealistic pressures to succeed, and family dysfunction can combine in dangerous combinations that result in depressive episodes and thoughts of suicide. Fortunately, environmental risk factors for suicidal behavior and barriers to mental health/substance abuse can be reduced and effective treatment for depression is available. It is important that childhood and adolescent depression and suicide warning signs are recognized, diagnosed, and treated.

Many people feel uncomfortable talking about suicide and death, particularly when it involves a child or adolescent. However, asking a depressed and potentially suicidal young person whether he or she is thinking about suicide is vital to appropriate intervention. Rather than putting thoughts into a young person's head, such a question provides assurance that somebody cares, will listen, and obtain help.

Suicide warning signs should be recognized and responded to before an attempt is made. If a youth attempts suicide, then direct intervention at the time of the attempt and ongoing follow-up is critical. This should include treatment that addresses holistically the many risk factors underlying the attempt.

More information about youth suicide prevention resources and suicide prevention efforts in Oregon can be found at the Department of Human Services, Health Division, Web site located at http://www.ohd.hr.state.or.us/cdpe/eoi or by contacting Ron Bloodworth, Youth Suicide Prevention Coordinator, at the Oregon Department of Human Services, Health Division, 800 NE Oregon St., Suite 772, Portland, OR, 97232, or by phone at 503.731.4978, or by e-mail at: ronald.bloodworth@state.or.us.

REFERENCES

1. Due to limited space, not all references and endnotes are listed here; see the following CHS website *http://www.ohd.hr.state.or.us/chs/teensuic/referenc.htm* for those not shown below.
2. During 1996-1998, unintentional injuries claimed 356 10- to 19-year-olds; 260 of these resulted from motor vehicle crashes.
5. U.S. Centers for Disease Control and Prevention. Wide-ranging On-line Data for Epidemiological Research (WONDER) system. The data shown are the most recent available.
56. The attempt method data are from the 1996-1998 Adolescent Suicide Attempt Data System, a hospital-based reporting system; the mortality data are from 1996-1998 Oregon resident death certificates.
57. Hopkins DD. Weapons and Oregon Teens: What is the Risk? Center for Health Statistics, Health Division, Oregon Dept. of Human Services. Portland, Oregon. 1999.
69. Zimmer-Gembeck MJ, Alexander T, Nystrom RJ. Adolescents Report Their Need for and Use of Health Care Services. J Adolesc Health 1997; 21:388-399.
70. Ford CA, Bearman PS, Moody J. Foregone Health Care Among Adolescents. JAMA 1999; 282:2227-2234.

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WARNING SIGNS
Possible Indicators of Increased Suicide Risk

Changes in behavior:
- *Accident proneness*
- *Drug and alcohol abuse*
- *Physical violence toward self, others, animals*
- *Loss of appetite*
- *Sudden alienation from family and friends*
- *Truancy, running away*
- *Worsening performance at school*
- *Putting affairs in order*
- *Loss of interest in appearance*
- *Disposal of possessions*
- *Letters, notes, poems with suicidal content*
- *Taking unnecessary risks*
- *Purchasing a gun*

Changes in mood:
- *Expressions of hopelessness, impending doom*
- *Explosive rage*
- *Dramatic highs and lows*
- *Becoming suddenly cheerful after a period of depression*
- *Crying spells*
- *Lack of sleep or excessive sleep*
- *Decline in self-respect*

Changes in thinking:
- *Difficulty concentrating*
- *Focus on morbid or death themes*
- *Hearing voices, seeing visions, expressing obviously false and bizarre beliefs*
- *Irrational speech*
- *Sudden interest or disinterest in church/religion*

Changes in life events:
- *Death of a family member or friend, especially by suicide*
- *Separation or divorce*
- *Loss of important relationship, including pet*
- *Public humiliation or failure*
- *Serious physical illness*
- *Loss of financial security*

These signs must be interpreted in context. Obviously many of them are common outside the realm of pre-suicidal behaviors.

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YOUTH SUICIDE: A SYNOPSIS

Results from the 1999 Oregon Youth Risk Behavior Survey revealed that during the previous 12 months 16.0 percent of high school students considered suicide, 6.4 percent attempted suicide, and 1.7 percent were treated by a doctor or nurse for a suicide attempt. Data are based on the responses of 22,913 students, or 14.1 percent of the state's 162,568 public high school students. To better identify youth at higher risk of suicidal behavior, data from multiple domains (e.g., demographic, social, and behavioral) were analyzed.

Among the groups more likely to report attempting suicide were: females (although males were more likely to die by suicide), younger students, and those attending schools with a lower socioeconomic ranking. Students who identified themselves as being very underweight or very overweight were also at greater risk, as were those with chronic health conditions and activity limitations.

Many of Oregon's children not only grow-up without the support they deserve, they are physically and sexually abused. In an average classroom of 30 students, five youth reported having no caring adult that they could talk to about their problems. In that same classroom, four reported that they had been intentionally hit, slapped, or physically hurt by an adult family member and six reported some form of sexual abuse. All of these students were four to six times more likely to attempt suicide.

Tens of thousands of youth are harassed at school. In a classroom of 30 students, nine have experienced at least one of the following during the previous 30 days: sexual harassment, racial/ethnic harassment, and/or harassment for perceived sexual orientation. Increasing harassment was linked to an increasing likelihood of suicidal behavior. Furthermore, about two students in the same classroom reported being threatened or injured with a weapon while at school during the prior 12 months.

Troubled youth are more likely to engage in deviant behavior. With the exception of a diagnosis of a psychological disorder, substance abuse and sexual behavior are among the strongest indicators (from the YRBS) of potential suicidal behavior. Moreover, there is a dose-response relationship for many of these behaviors; that is, as the frequency of the behavior (e.g., cigarette smoking, sexual intercourse) increases so too does the likelihood of attempting suicide.

Parents and educators often do not recognize a child's suicidal symptoms, or if they do, may feel ill-equipped to intervene. Yet without intervention, at-risk youth may attempt suicide. Adults, and youth themselves, should be aware of the indicators of potential suicide risk, and should tell those in a position to help if they see someone exhibiting those signs. A previous suicide attempt is the best predictor of future suicidal behavior; among attempters, 10 percent to 20 percent will ultimately die by suicide. Without intervention there may be no second chance.

DHS oregon department of human services

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